

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

TANAKA, SHINOBU

Continuation of
Appln. No.: 09/411,256

Confirmation No. Unknown

Prior
Group Art Unit: 2167

Filed: June 19, 2001

Prior Examiner: G. O'Connor

For: SINGLE LEVER WITH BUTTON FOR SELECTIVELY CONTROLLING EITHER
TILT OR LIFT OF A FORKLIFT MECHANISM

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

IN THE TITLE:

Please delete the present title and replace it with the following new title:

--SINGLE LEVER WITH BUTTON FOR SELECTIVELY CONTROLLING EITHER
TILT OR LIFT OF A FORKLIFT MECHANISM--.

IN THE CLAIMS:

Please enter the following amended claims:

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1. (Once amended) A load handling apparatus for a counterbalance type forklift, comprising:

one tiltable operating lever disposed on a body of the forklift;

a mast tiltable in an anteroposterior direction and disposed on said forklift;

a liftable fork disposed on said mast;

a solenoid proportional control valve, in which a tilting speed of said mast and lifting and lowering speeds of said fork are controlled by a degree of opening of said solenoid proportional control valve, said degree of opening being proportional to a tilting angle of said operating lever;

a switch attached to said operating lever; and

a controller that tilts said mast when said operating lever is tilted and said switch is in a first switching state, that lifts or lowers said fork when said operating lever is tilted and said switch is in a second switching state, and that prevents lifting and lowering of said fork when said switch is changed from said first switching state to said second switching state while said operating lever is tilted.

2. (Once amended) A load handling apparatus as claimed in claim 1,

wherein said controller includes an inhibiting circuit for stopping the tilting action of the mast and the lifting or lowering action of the fork when said switch is switched from said first switching state to said second switching state while said operating lever is being operated.

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Please add the following new claims:

--3. A load handling apparatus for use with a forklift, comprising:

a mast;

a fork that is slidably coupled to said mast;

a tiltable operating lever;

a switch coupled to said operating lever;

at least one control valve that controls a tilting of said mast and a sliding of said fork with respect to said mast; and

a controller that outputs at least one signal to said at least one control valve to control said tilting of said mast and said sliding of said fork, wherein said controller outputs said at least one signal based on a switching state of said switch and a tilting state of said operating lever.

4. A load handling apparatus as claimed in claim 3, wherein said controller includes an inhibiting circuit for stopping said tilting of said mast and said sliding of said fork.

5. A load handling apparatus as claimed in claim 3, wherein said controller outputs said at least one signal to said at least one control valve to control said tilting of said mast while said switching state of said switch is in a first switching state and based on the tilting state of said operating lever.

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6. A load handling apparatus as claimed in claim 5, wherein said controller outputs said at least one signal to said at least one control valve to control said sliding of said fork while said switching state of said switch is in a second switching state and based on the tilting state of said operating lever.

7. A load handling apparatus as claimed in claim 3, wherein said controller outputs said at least one signal to said at least one control valve to control said sliding of said fork while said switching state of said switch is in a first switching state and based on the tilting state of said operating lever.

8. A load handling apparatus as claimed in claim 3, wherein said controller prohibits simultaneous operation of said tilting of said mast and said sliding of said fork.

9. A load handling apparatus as claimed in claim 6, wherein said controller prohibits simultaneous operation of said tilting of said mast and said sliding of said fork.--

FOR FILING

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REMARKS

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,



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Date: June 19, 2001

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Once amended) A load handling apparatus for a counterbalance type forklift, comprising:
 - one tiltable operating lever disposed on a body of the forklift;
 - a mast tiltable in an anteroposterior direction and disposed on said forklift;
 - a liftable fork disposed on said mast;
 - a solenoid proportional control valve, in which a tilting speed of said mast and lifting and lowering speeds of said fork are controlled by a degree of opening of said solenoid proportional control valve, said degree of opening being proportional to a tilting angle of said operating lever;
 - a switch attached to said operating lever; and
 - a controller [for controlling so as to output a signal for tilting] that tilts said mast when said operating [level] lever is tilted and [under a state where] said switch is in a first switching state [operated], that [output a signal for lifting or lowering] lifts or lowers said fork when [only] said operating lever is [operated; and disable actions of lifting and lowering] tilted and said switch is in a second switching state, and that prevents lifting and lowering of said fork when said switch is changed from said first switching state to said second switching state [to an inactive condition under a state where] while said operating lever is tilted [in an tilting operation condition unless said operating lever is returned to a neutral condition].

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2. (Once amended) A load handling apparatus as claimed in claim 1,
wherein said controller includes an inhibiting circuit for stopping the tilting action of the
mast and the lifting or lowering action of the fork when said switch is switched from said first
switching state to said second switching state while said operating lever is being operated.